

Fedora, RHEL, fedora-ia64

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Overview

- What is Fedora?
- What is RHEL?
- What is fedora-ia64 and how is it different from Fedora?
- Fedora and RHEL – where should I develop?
- fedora-ia64 & RHEL



What is Fedora?



What is Fedora?

- OS, community, free
- Fedora is Red Hat's true open source project
- Red Hat supported (\$\$\$, people, build systems)
- Community supported
 - Communication between Red Hat & open source community members



Fedora cont'd

- Method of sorting upstream packages into “stable” OS release
 - Approximately 2000 packages
- Release early, release often



Fedora cont'd

- Old build model was that Red Hat built all “required” architectures for Fedora Project internally
- Released externally as Fedora devel, or “rawhide”
- New build model earlier this year separated Fedora build system from RH build system



Fedora cont'd

- Fedora Project now only builds i386, x86_64
 - Other “secondary architectures” are built by individual groups
 - powerpc/ppc/ppc64, SPARC (Aurora Linux), ia64 (fedora-ia64), ...
 - Fedora Project's build system notifies independent build farms that new source packages are available



Fedora cont'd

- Build notifications discussed later in presentation
- Build system's three important packages:
 - koji – used to monitor package building
 - mock – builds packages
 - pungi – release “roller”



Fedora cont'd

- <http://www.fedoraproject.org>
- Fedora Release Schedule
 - F7-test3
 - F7 in a few weeks



What is RHEL?



How are the OSes related?

Community



FEDORA PROJECT (source) → fedora-ia64



Red Hat Enterprise Linux



Red Hat Enterprise Linux

- A “hardened” version of Fedora release
 - Testing
 - Bug fixing
 - Additional proprietary & binary-only packages and kernel changes
 - Based on Partner Agreements
 - Subscription-based support agreement for customers



RHEL cont'd

- What does RHEL get you that Fedora doesn't?
 - Hardened, tested OS
 - Fedora has some testing ...
 - Reliability
 - Performance
 - *Support*
 - Proprietary & binary-only packaging



What is fedora-ia64?



How are the OSes related?

Community



FEDORA PROJECT (source) → fedora-ia64



Red Hat Enterprise Linux



fedora-ia64

- Not an official release of Fedora
 - “officially” unofficial
 - Fedora Project is aware of our work, and has given us much assistance
 - Tim Yamin, plasm@roo.me.uk, fedora-ia64 Admin
 - Prarit Bhargava, prarit@redhat.com, fedora-ia64 Maintainer



fedora-ia64 cont'd

- Fedora Project builds nightly
 - Releases SRPMs
- fedora-ia64 build farm receives notification from Fedora Project
 - Build farm provided by Itanium Solutions Alliance
 - Builds IA64 based binaries, not SRPMs



fedora-ia64 cont'd

- Release 24 – 48 hours behind Fedora Project
 - CDs, DVD, NFS, FTP, HTTP
- FC5, FC6, F7 ...



fedora-ia64 cont'd

- How is fedora-ia64 different from Fedora Project?
 - We build from the same sources.
 - We do release a bit later than Fedora Project, but that's a build complication
 - Bugs filed against Fedora “devel” in RH's bugzilla



Fedora* or RHEL?



Packages?

How do I get a kernel change or a package into
Fedora*? What about RHEL?



How are the OSes related?

Community



FEDORA PROJECT (source) → fedora-ia64



Red Hat Enterprise Linux



Why Fedora*?

- Customer makes request of Fedora to turn on a feature or include a package
 - Fedora engineer examines that request
 - Accepts/Rejects request



Why Fedora* cont'd?

- Customer opens a bugzilla
- Engineer responds to bugzilla
 - May require patch, may require packaging, etc.
- Engineer assists customer with package and effort to get it accepted to Fedora
- Few hours of work for Fedora engineer
- Fedora Maintainer “turns it on”



How are the OSes related?

Community



FEDORA PROJECT (source) → fedora-ia64



Red Hat Enterprise Linux



Why RHEL?

- RH snapshots Fedora to get RHEL
- Customer makes a request of RH for change
 - Proprietary Code? Missed Fedora?
 - RH examines this from a Partner Management, Support, QA, Engineering perspective
 - MUCH more strict than Fedora submission



Why RHEL? cont'd

- Engineer must have acceptance by several layers of Red Hat management before examining the code
- Man-days of work to determine acceptability



Fedora or RHEL

- Get it in Fedora
 - Testing/debugging platform
 - **Will add some weight to having request included in RHEL**
- Get it in RHEL
 - proprietary code?
 - Binary only packaging?



fedora-ia64 & RHEL?



fedora-ia64 & RHEL

- RHEL4
 - ia64 not built for Fedora
 - Resulted in 100+ critical issues
 - Development was difficult at Red Hat
- RHEL5
 - Snapshot of fedora-ia64
 - Resulted in 4 critical issues



Questions

Build my own?

- koji, mock, pungi packages
- Available in Fedora Extras
- Build farm!
- Notification procedure from Fedora Project
- <http://www.fedoraproject.org>
 - How to submit a BZ for fedora



WWW

- Prarit Bhargava, prarit@redhat.com
- Tim Yamin, plasm@roo.me.uk
- <http://fedoraproject.org>
- <http://oss.sgi.com/projects/fedora-ia64>

